

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Hiroyuki UCHIDA et al.

Application No.: Division of Serial No. 09/155,015 Group Art Unit:

Filed: Examiner:

For: METHOD OF EXPANDING TYPES OF SYNCHRONOUS MOTORS AND
SYNCHRONOUS MOTORS PRODUCED BY THE METHOD

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Before examination of the above-identified application, please amend the application as follows:

IN THE SPECIFICATION

Please INSERT in page 1, between lines 3 and 4 the following:

This application is a divisional of application number 09/155,015, filed September 16, 1999, now pending, which is a 371 of PCT/JP98/00137, filed January 16, 1998.

Please REPLACE the paragraph in page 6, beginning in line 22 with the following:

Still another object of the present invention is to permit expansion of synchronous motor types in such a manner that only the torque specification value or only the rotor inertia specification value can be changed.

IN THE CLAIMS

Please CANCEL claims 1-5 without prejudice or disclaimer.

Please ADD new claims 6-9 as follows:

6. (NEW) A method for producing a plurality of synchronous motors of different kinds,

each having a stator formed by stacking stator cores and a rotor with permanent magnets, comprising:

preparing a group of stators that can be used in common, each stator being formed by stacking stator cores of identical shape so that heights of the stators are different from one another, the heights being equal to integer multiples of a predetermined height in accordance with predetermined output torque specification values and predetermined rotor inertia specification values;

preparing a plurality of groups of rotors so that lengths of the rotors in each group are different from one another, the lengths being equal to integer multiples of a predetermined length in accordance with predetermined rotor inertia specification values, said rotors in each group being provided with permanent magnets having a residual magnetic flux density different from that of permanent magnets of the rotors in another group in accordance with predetermined output torque specification values;

selecting a stator from said group of the stators prepared previously and a rotor from said groups of the rotors prepared previously in accordance with a preset output torque specification value and a preset rotor inertia specification value ;

changing the stator height and the rotor length to thereby alter either the torque specification value or the rotor inertia specification value; and

combining the selected stator with the selected rotor.

7. (NEW) The method for producing a plurality of synchronous motors of different kinds according to claim 6, further comprising radially arranging the permanent magnets provided in the rotors in each group at identical positions in circumferential and radial directions.

8. (NEW) The method for producing a plurality of synchronous motors of different kinds according to claim 6, further comprising affixing the permanent magnets to a surface of each rotor.

9. (NEW) The method for producing a plurality of synchronous motors of different kinds according to claim 6, further comprising embedding the permanent magnets in a core of each rotor.

REMARKS

This Preliminary Amendment is submitted to submit claims directed to subject matter disclosed, but not claimed in the parent application. It is respectfully requested that this Preliminary Amendment be entered in the above-referenced application.

In accordance with the foregoing, claims 6-9 have been added. Thus, claims 6-9 are pending and are under consideration.


If there are any questions regarding these matters, such questions can be addressed by telephone to the undersigned. Otherwise, an early action on the merits is respectfully solicited.

If any further fees are required in connection with the filing of this Preliminary Amendment, please charge same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

By:


Gene M. Garner II
Registration No. 34,172

700 Eleventh Street, N.W.
Suite 500
Washington, D.C. 20001
(202) 434-1500

Date:

Aug 8, 2002

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Please INSERT in page 1, between lines 3 and 4 the following:

This application is a divisional of application number 09/155,015, filed September 16, 1999, now pending, which is a 371 of PCT/JP98/00137, filed January 16, 1998.

Please AMEND the paragraph in page 6, beginning in line 22 with the following:

Still another object of the present invention is to permit expansion of synchronous motor types in such a manner that only the torque specification value or [onlyu] only the rotor inertia specification value can be changed.